

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: RAVALEC-DUPIN et al.

Application No.: Unassigned

Filed: July 10, 2003

For: METHOD OF CONSTRAINING A HETEROGENEOUS  
PERMEABILITY FIELD REPRESENTING AN  
UNDERGROUND RESERVOIR BY DYNAMIC DATA

Art Unit: Unassigned

Examiner: Unassigned

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §1.97 AND §1.98**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

July 10, 2003

Sir:

In the matter of the above-identified application, applicant is submitting herewith a copy of a communication from a foreign patent office in a counterpart foreign application and copies of the documents listed in the attached form equivalent to Form PTO-1449 for the Examiner's consideration. A courtesy copy of a Preliminary Search Report dated April 11, 2003, is attached hereto.

This Information Disclosure Statement is being submitted before the mailing date of a first office action on the merits.

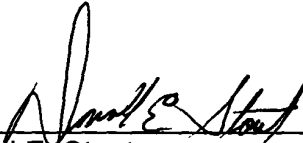
To the extent the documents listed on the attached form equivalent to Form PTO-1449 are not in the English language, the requirement of 37 C.F.R. §1.98(a)(3) for a concise explanation of the relevance is satisfied by an English language version or translation of the foreign patent office report citing the documents.

It is respectfully requested that this information disclosure statement be considered by the Examiner.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (612.42904X00) and please credit any excess fees to such Deposit Account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

A handwritten signature in black ink, appearing to read "Donald E. Stout", is written over a horizontal line.

Donald E. Stout  
Registration No. 26,422

DES/nbf

1980

1980

1980

1980

1980

1980

1980

1980

1980

## PRELIMINARY SEARCH REPORT

DOCUMENTS DEEMED PERTINENT		Claims concerned
Category	Document listing, indicating pertinent parts where necessary	
Y	<p>Le Gallo, Y. et al.: "History Matching Geostatistical Reservoir Models with Gradual Deformation Method"</p> <p>Proceedings of the 2000 SPE Annual Technical Conference and Exhibition on Drilling and Completion; Dallas, TX, United States, Oct. 1-4, 2000,</p> <p>No. B, 2000, pages 75-87, XP002237985</p> <p>SPE Reservoir ENG: SPE Reservoir Engineering (Society of Petroleum Engineers) 2000</p> <p>* entire document *</p>	1
D, Y	<p>Wang, Y. et al.: "Streamline Approach for History Matching Production Data"</p> <p>SPE J; SPE Journal December 2000, Vol. 5, No. 4, December 2000 (2000-12), pages 353-361, XP002237986</p> <p>* entire document *</p>	1
D, A	<p>FR 2,795,841 A (Inst. Français du Pétrole)</p> <p>January 5, 2001 (2001-01-05)</p> <p>* page 7, line 3 – page 13, line 7 *</p>	1
A	<p>Tran, T.T. et al.: "Efficient Conditioning of 30 Fine-Scale Reservoir Models to Multiphase Production Data Using Streamline-based Coarse-scale Inversion and Geostatistical Downscaling"</p> <p>SPE Annual Technical Conference and Exhibition, XX, XX, No. 56518, October 3, 1999 (1999-10-03), pages 1-13, XP002186718</p> <p>* abstract *</p> <p style="text-align: right;">-/--</p>	1

Date search completed: April 11, 2003

Examiner: B. Lorne

## PRELIMINARY SEARCH REPORT

DOCUMENTS DEEMED PERTINENT		Claims concerned
Category	Document listing, indicating pertinent parts where necessary	
A	Deutsch, C.V. et al.: "Geostatistical Techniques Improve Reservoir Management" Petroleum Engineer International, Hart Publications, USA, Vol. 69, No. 3, March 1, 1996 (1996-03-01), pages 21-22, 24-27, XP000596614 ISSN: 0164-8322 * entire document *	1

Date search completed: April 11, 2003

Examiner: B. Lorne

page 2 of 2

établi sur la base des dernières revendications  
déposées avant le commencement de la recherche

FA 620991  
FR 0208714

I



## RAPPORT DE RECHERCHE PRÉLIMINAIRE

établi sur la base des dernières revendications  
déposées avant le commencement de la recherche

N° d'enregistrement  
national

FA 620991  
FR 0208714

DOCUMENTS CONSIDÉRÉS COMME PERTINENTS		Revendication(s) concernée(s)	Classement attribué à l'invention par l'INPI
Catégorie	Citation du document avec indication, en cas de besoin, des parties pertinentes		
A	<p>DEUTSCH C V ET AL: "GEOSTATISTICAL TECHNIQUES IMPROVE RESERVOIR MANAGEMENT" PETROLEUM ENGINEER INTERNATIONAL, HART PUBLICATIONS, US, vol. 69, no. 3, 1 mars 1996 (1996-03-01), pages 21-22,24-27, XP000596614 ISSN: 0164-8322 * le document en entier *</p>	1	
			DOMAINES TECHNIQUES RECHERCHÉS (Int.CL.7)
Date d'achèvement de la recherche		Examineur	
11 avril 2003		Lorne, B	
<p><b>CATÉGORIE DES DOCUMENTS CITÉS</b></p> <p>X : particulièrement pertinent à lui seul Y : particulièrement pertinent en combinaison avec un autre document de la même catégorie A : arrière-plan technologique O : divulgation non-écrite P : document intercalaire</p> <p>T : théorie ou principe à la base de l'invention E : document de brevet bénéficiant d'une date antérieure à la date de dépôt et qui n'a été publié qu'à cette date de dépôt ou qu'à une date postérieure. D : cité dans la demande L : cité pour d'autres raisons &amp; : membre de la même famille, document correspondant</p>			

1  
EPO FORM 1503 12.96 (P04C14)

## RELATIF A LA DEMANDE DE BREVET FRANÇAIS NO. FR 0208714 FA 620991

Les dits membres sont contenus au fichier informatique de l'Office européen des brevets à la date du 11-04-2003

CONFIDENTIAL

Pour tout renseignement concernant cette annexe : voir Journal Officiel de l'Office européen des brevets, No.12/82